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US EPA RECORDS CENTER REGION 5



July 26, 2013

Mr. Brad Benning  
On-Scene Coordinator  
U.S. Environmental Protection Agency, Region V  
77 West Jackson Boulevard, SE-5J  
Chicago, IL 60604-3507

**Subject: Emergency Response - J&R Tire Fire Site  
Hoopeston, Vermilion County, Illinois  
Technical Direction Document No.: S05-0001-1306-017  
Work Order No.: 20405.012.001.2196.00  
Document Control No.: 2196-2A- BHTF**

Dear Mr. Benning:

Under Technical Direction Document (TDD) No. S05-0001-1306-017, the U.S. Environmental Protection Agency Region V Emergency Response Branch tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to provide support during emergency response (ER) activities at the J&R Tire Fire in Hoopeston, Vermilion County, Illinois (the Site). WESTON START conducted the following ER support activities:

- Air monitoring
- Water and air sampling
- Waste disposition tracking
- Data validation and review of the sample results
- Written and photographic documentation
- Management of Site-related files and information

This letter report discusses the Site description, ER organization, ER activities, laboratory analytical results, disposition of waste, and provides a summary. In addition, this letter report has six attachments. **Attachment A** provides the figures for this letter report. **Attachment B** provides photographic documentation of Site conditions and the ER activities. **Attachment C** provides plume figures produced during the response. **Attachment D** provides the analytical results tables. **Attachment E** provides a copy of the laboratory's analytical results. **Attachment F** provides a copy of the asbestos debris waste manifest.

### **SITE DESCRIPTION**

The Site is located at 103 E. Maple Street in Hoopeston, Vermilion County, Illinois (**Figure 1** in



Mr. Brad Benning  
U.S. EPA

-2-

J&R Tire Fire ER  
July 26, 2013

**Attachment A).** The Site's coordinates are 40.4625036° North latitude and 87.6715938° West longitude. The Site is located in a mixed residential and industrial area bordered by Maple Street to the north, Market Street to the east, Orange Street (Route 9) to the south, and CSX Railroad tracks to the west (**Figure 2 in Attachment A**). J&R Tire operated as a tire recycling business, and the Site contained an estimated 30,000 solid and shredded tires.

On June 19, 2013, a fire and smoke plume were reported near the Site at 5:21 a.m. A large smoke plume initially traveled west from the fire, forcing the evacuation of residents west of the Site for five city blocks. Local fire responders began fighting the fire with water and heavy construction equipment. The large on-site facility is considered a complete loss because of the fire. Fire suppression water contaminated with oil and ash entered local storm sewers and discharged to a long retention ditch directly south of the Site running parallel with the railroad tracks (**Figure 2 in Attachment A**). The ditch has an estimated capacity of over 4 million gallons. Initial reports indicate that an unknown quantity of contaminated water entered a tributary of the Vermilion River. The outfall from the retention ditch was blocked, but only after several hours into the incident. Oil and ash also were observed in the retention ditch.

On June 19, 2013, at 8:00 a.m., the Illinois Environmental Protection Agency (IEPA) arrived on scene. After observing initial Site conditions, the IEPA requested air monitoring support from EPA.

### **EMERGENCY RESPONSE ORGANIZATION**

The table below lists the agencies and organizations involved in the ER.

<b>Agencies or Parties Involved</b>	<b>Contact</b>	<b>Role</b>
EPA – Region V Superfund - Emergency Response 77 West Jackson Boulevard Chicago, IL 60604	<b>Brad Benning</b> (312) 353-7613	Federal OSC responsible for overall project oversight and success
IEPA Office of Emergency Response 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794	<b>Blaine Kinsley</b> (217) 557-4701	State official responsible for overall project oversight and success
Weston Solutions, Inc. 750 Bunker Court Vernon Hills, IL 60061	<b>Tonya Balla</b> (847) 918-4094	START project manager responsible for site support, direction of daily START activities, quality control, documentation, and START-related cost-tracking
	<b>Mike Mejac</b> (414) 347-1697	START site lead responsible for ER field activities, sample management, and documentation
Environmental Restoration, LLC 16660 Canal Street South Holland, IL 60473	<b>John Behrens</b> (708) 333-9915	Response manager responsible for directing daily ERRS activities, providing personnel and equipment necessary for removal, and coordinating transportation and disposal of waste streams; also tracked ERRS-related costs



Mr. Brad Benning  
U.S. EPA

-3-

J&R Tire Fire ER  
July 26, 2013

## **EMERGENCY RESPONSE ACTIVITIES**

On June 19, 2013, EPA On-Scene Coordinator (OSC) Brad Benning requested WESTON START to mobilize to the Site to conduct perimeter air monitoring, track the disposition of wastes, collect water and air samples, and collect written and photographic documentation of Site conditions and ER activities. Later, EPA also requested WESTON START to perform oversight of activities conducted by the Emergency and Rapid Response Services (ERRS) contractor, Environmental Restoration, LLC, activities. **Figure 3** in **Attachment A** shows sampling locations described below. **Attachment B** provides photographic documentation of Site conditions and the ER activities. **Attachment C** provides the detailed plume figures produced by WESTON START during the response. A chronology of Site activities is presented below.

### **June 19, 2013**

- EPA, IEPA, WESTON START, and ERRS personnel mobilized to the Site.
- Local fire crews fought the fire with water and heavy equipment.
- WESTON START documented Site activities and produced figures detailing the current status of the smoke plume. EPA and WESTON START monitored particulates during the ongoing firefighting efforts and compared results to a particulate action level of 0.15 milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ).
- WESTON START conducted perimeter air monitoring near the Site and the surrounding residential neighborhood for volatile organic compounds (VOC), carbon monoxide (CO), hydrogen sulfide ( $\text{H}_2\text{S}$ ), lower explosive limit (LEL), oxygen, and particulates using a MultiRAE and a personal dataRAM (PDR) particulate monitor. The particulate readings ranged from 0.000 to 6.715  $\text{mg}/\text{m}^3$ .
- WESTON START conducted air monitoring in the surrounding residential neighborhood for VOCs, LEL, ammonia ( $\text{NH}_3$ ), hydrogen cyanide (HCN), hydrogen chloride (HCl), chlorine gas ( $\text{Cl}_2$ ), and oxygen using AreaRAE units. HCN and HCl raw data ranged from 0.0 to 3.4 parts per million (ppm) and 0.0 to 2.1 ppm, respectively.

### **June 20, 2013**

- WESTON START continued 24-hour perimeter air monitoring for VOCs, LEL,  $\text{NH}_3$ , HCN, HCl,  $\text{Cl}_2$ , oxygen, and particulates near the Site and in the surrounding residential neighborhood.
- WESTON START documented Site activities and produced figures detailing the current status of the smoke plume.



Mr. Brad Benning  
U.S. EPA

-4-

J&R Tire Fire ER  
July 26, 2013

- ERRS personnel installed a sorbent boom around the entrance to the retention ditch south of the Site to collect surface sheen. ERRS personnel also assembled and began operating a carbon filter system to treat fire suppression water in the retention ditch.
- WESTON START collected both pre- and post-treatment water samples for laboratory analysis (JRF-W01-20130620 and JRF-W02-20130620).

#### **June 21, 2013**

- WESTON START continued conducting perimeter air monitoring for particulates, documenting Site activities, and producing figures detailing the current status of the smoke plume. WESTON START collected 17 bulk asbestos samples of building debris (JRF-A-W-01 through JRF-A-W-09, JRF-A-S-10, JRF-A-E-11, JRF-A-ND-12, JRF-A-ND-13, JRF-A-ED-14, JRF-A-ED-15, JRF-A-SD-16, and JRF-A-SD-17).
- ERRS personnel conducted boom maintenance and treatment of fire suppression water in the retention ditch.
- The surface fires at the Site were extinguished, and limited firefighting personnel remained at the Site to apply water to prevent flare-ups during demolition of the tire and debris piles.

#### **June 22, 2013**

- WESTON START continued conducting perimeter air monitoring for particulates and documenting Site activities.
- ERRS personnel continued boom maintenance and treatment of fire suppression water in the retention ditch.

#### **June 23, 2013**

- WESTON START continued conducting perimeter air monitoring for particulates and documenting Site activities. WESTON START also collected five air samples in and around the smoke plume (062313-A1 through A5) for asbestos analysis using Transmission Electron Microscopy (TEM) and Phase Contrast Microscopy (PCM).
- WESTON START collected a water sample of treated water for laboratory analysis (JRF-W02-20130623).
- ERRS personnel continued boom maintenance and treatment of fire suppression water in the retention ditch.

#### **June 24, 2013**



Mr. Brad Benning  
U.S. EPA

-5-

J&R Tire Fire ER  
July 26, 2013

- WESTON START continued conducting perimeter air monitoring for particulates and documenting Site activities.
- ERRS personnel continued treatment of fire suppression water in the retention ditch. ERRS personnel also used a vacuum truck to skim sheen from the retention ditch.

#### **June 25, 2013**

Based on positive results for asbestos-containing materials (ACM) in the debris samples collected on June 21 and reported on June 22, 2013, the OSC determined that fire debris that mobilized off-site in the smoke plume should be collected to reduce the exposure potential of surrounding residences and for proper disposal. The ERRS contractor mobilized additional personnel to collect potential ACM debris from adjacent properties and the surrounding residential area.

ERRS personnel wore safety vests and gloves and carried backpack water sprayers to wet down the materials prior to collection. Tongs were used to pick up suspected asbestos debris, which was placed into plastic bags for later disposal.

- WESTON START continued conducting perimeter air monitoring for particulates, conducted oversight of potential ACM debris collection, and documented Site activities.
- ERRS personnel continued treatment of fire suppression water in the retention ditch and using a vacuum truck to skim sheen from the retention ditch.

#### **June 26, 2013**

- WESTON START continued conducting perimeter air monitoring for particulates, overseeing potential ACM debris collection, and documenting Site activities.
- ERRS personnel continued treatment of fire suppression water in the retention ditch, using a vacuum truck to skim sheen from the retention ditch, and collecting ACM from debris and containerizing it for disposal.

#### **June 27, 2013**

- WESTON START continued conducting perimeter air monitoring for particulates, overseeing potential ACM debris collection, and documenting Site activities. WESTON START also collected a sample of treated water for laboratory analysis (JRF-W03-20130627).
- ERRS personnel continued treatment of fire suppression water in the retention ditch, using a vacuum truck to skim sheen from the retention ditch, and collecting ACM from debris and containerizing it for disposal.



Mr. Brad Benning  
U.S. EPA

-6-

J&R Tire Fire ER  
July 26, 2013

### June 28, 2013

- WESTON START continued conducting perimeter air monitoring for particulates, overseeing potential ACM debris collection, and documenting Site activities. WESTON START demobilized from the Site on the afternoon of June 28, 2013.
- ERRS personnel continued treatment of fire suppression water in the retention ditch, using a vacuum truck to skim sheen from the retention ditch, and collecting ACM from debris and containerizing it for disposal.

### July 1, 2013

- As requested by the OSC, WESTON START remobilized to the Site and collected an additional sample of treated water for laboratory analysis (JRF-W04-20130701).
- ERRS personnel continued treatment of fire suppression water in the retention ditch and using a vacuum truck to skim sheen from the retention ditch.

### LABORATORY ANALYTICAL RESULTS

Five surface water samples were collected from the retention ditch and analyzed by Test America in University Park, Illinois. **Figure 3** in **Attachment A** shows sampling locations. **Table 1** in **Attachment D** summarizes the surface water sample analytical results for Target Analyte List (TAL) metals, VOCs, semivolatile organic compounds (SVOC), and pH. Samples JRF-W01-20130620, JRF-W02-20130620, and JRF-W04-20130701, also were analyzed for total sulfide. The surface water samples were analyzed to determine the constituents present in treated and untreated fire suppression water in the retention ditch. Sample results were not compared to specific criteria. Water sample JRF-W01-20130620 was collected from the retention ditch from fire suppression water before treatment through ERRS contractor's mobile carbon filter system. The sample contained high concentrations of acetone and caprolactam. The other four samples were collected from fire suppression water treated by the mobile carbon filter system. The concentrations of acetone and caprolactam in the treated water samples were much lower. All the samples were analyzed by the laboratory within the acceptable holding times. **Attachment E** provides the electronically submitted analytical results from the laboratories.

Seventeen samples of building debris were submitted for bulk asbestos analysis. **Figure 3** in **Attachment A** shows sampling locations. **Table 2** in **Attachment D** summarizes the bulk asbestos analytical results. The debris samples were analyzed to determine if asbestos was present in the debris materials. Samples JRF-A-W-08 and JRF-A-E-11 contained 1 to 5 percent chrysotile asbestos, and samples JRF-A-W-03 and JRF-A-W-06 contained 5 to 10 percent chrysotile asbestos.

Five air samples (and two media blanks) were submitted for asbestos analysis using TEM



Mr. Brad Benning  
U.S. EPA

-7-

J&R Tire Fire ER  
July 26, 2013

(National Institute for Occupational Safety and Health [NIOSH] Method 7402) and PCM (NIOSH Method 7400, 4th Edition August 15, 1994). **Figure 3 in Attachment A** shows sampling locations. **Tables 3 and 4 in Attachment D** summarize the TEM and PCM asbestos analytical results, respectively. The samples were analyzed to determine if asbestos was present at detectable concentrations in air. Sample results were compared to the EPA and IEPA clearance criterion of 0.01 fiber per cubic centimeter (f/cc). All sample results were under the clearance criterion.

### **DISPOSITION OF WASTES**

Disposal of the carbon filter units and associated fractionation tank bottom waste was transferred to a State contract for Bodine to coordinate. A total of one 30-cubic-yard roll-off box of bagged asbestos waste was transported by Republic services on July 12, 2013 and taken to BrickYard Disposal in Danville, Illinois for disposal. **Attachment F** contains a copy of the Waste Manifest.

### **SUMMARY**

On June 19, 2013, the EPA requested WESTON START to mobilize to the Site to conduct perimeter air monitoring activities, water and air sampling, waste disposition tracking, and oversight of ERRS contractor activities. The overall ER activities were conducted from June 19 through July 3, 2013. A total of one 30-cubic-yard roll-off box of bagged asbestos waste removed on July 12, 2013.

This letter report serves as the final deliverable for this TDD. If you have questions or comments regarding this report, please contact me at (847) 918-4094.

WESTON SOLUTIONS, INC.

Tonya Balla  
START Project Manager

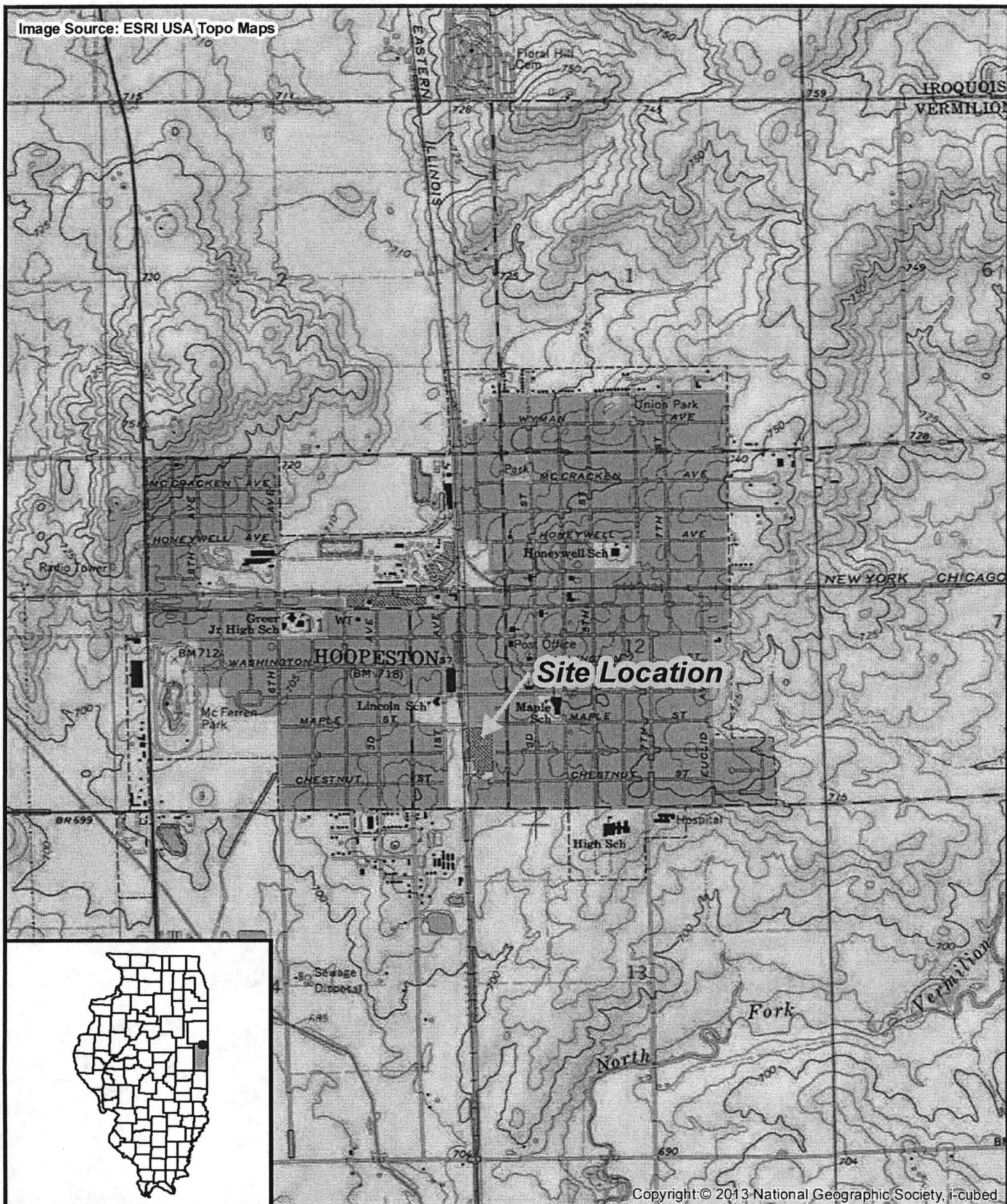
#### Attachments:

- A – Figures
  - B – Photographic Documentation
  - C – Plume Figures
  - D – Analytical Result Tables
  - E – Laboratory Analytical Results
  - F – Waste Manifest
- cc: WESTON START DCN File

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**ATTACHMENT A**  
**FIGURES**

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# Legend

0 2,000 Feet



Prepared For:  
U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD: S05-0008-1306-017  
DCN: 2196-2A- BHTF



Prepared By:  
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## Figure 1

Site Location Map  
J&R Tire Fire Site  
Hoopeston, Vermilion County, Illinois



0 650 Feet



Contract No.: EP-S5-06-04  
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Suite 500  
Vernon Hills, IL 60061

**Figure 2**  
Site Features Map  
J&R Tire Fire Site  
Hoopeston, Vermilion County, Illinois

Image Source: ESRI Bing Maps



### Legend

-  Water Sampling Location
-  Asbestos Air Sampling Location
-  Asbestos Bulk Sampling Location

0 650 Feet



Prepared For:  
U.S. EPA REGION V

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**Figure 3**  
Sampling Location Map  
J&R Tire Fire Site  
Hoopeston, Vermilion County, Illinois

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**ATTACHMENT B**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** J&R Tire Fire

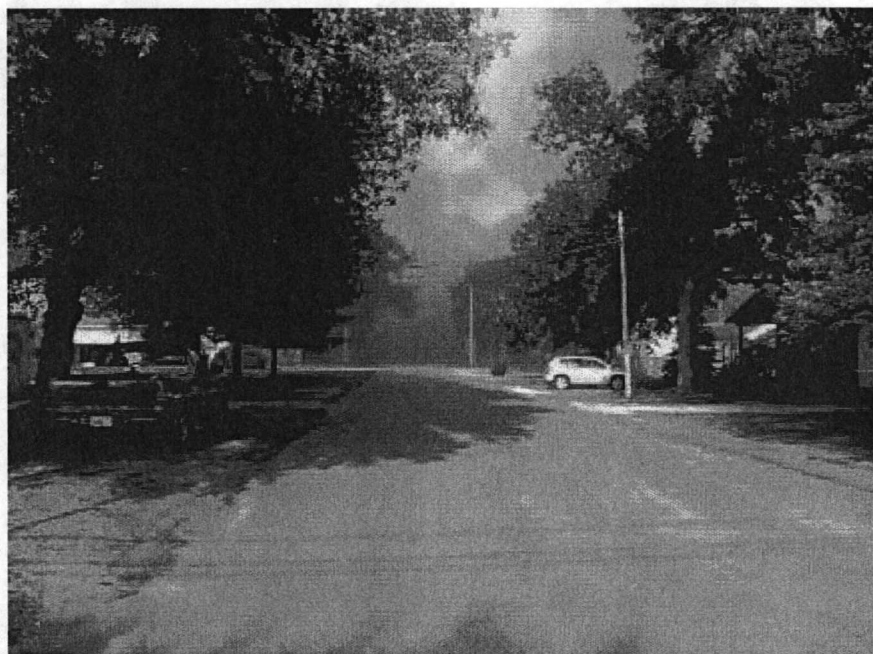
**Photograph No.:** 1

**Direction:** East

**Subject:** Smoke plume from outside of town on Route 9 approximately 5 miles from Site

**Date:** 6/19/13

**Photographer:** Jeff Bryniarski



**Site:** J&R Tire Fire

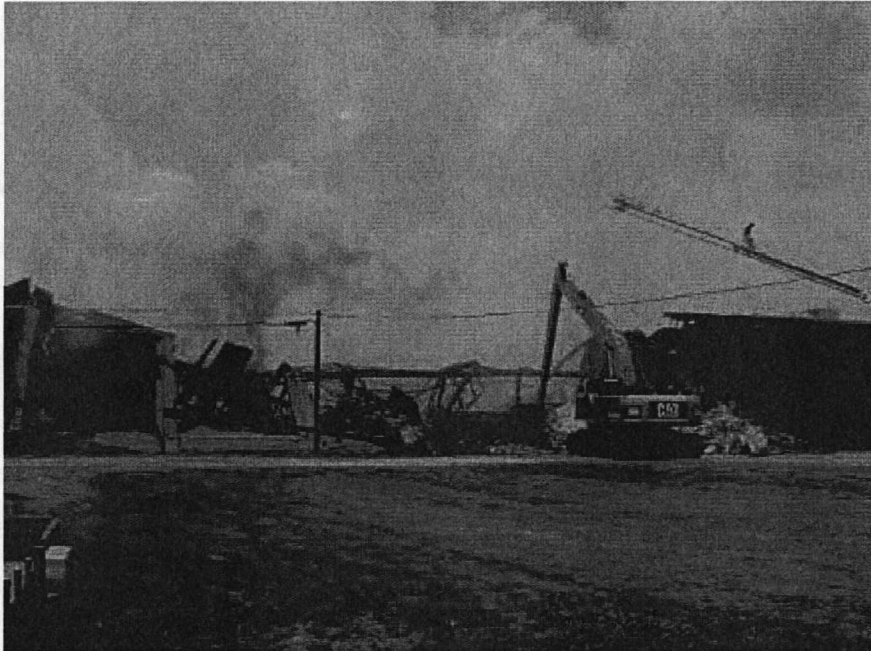
**Photograph No.:** 2

**Direction:** East

**Subject:** Smoke plume near residences on Elm Street

**Date:** 6/19/13

**Photographer:** Jeff Bryniarski



**Site:** J&R Tire Fire

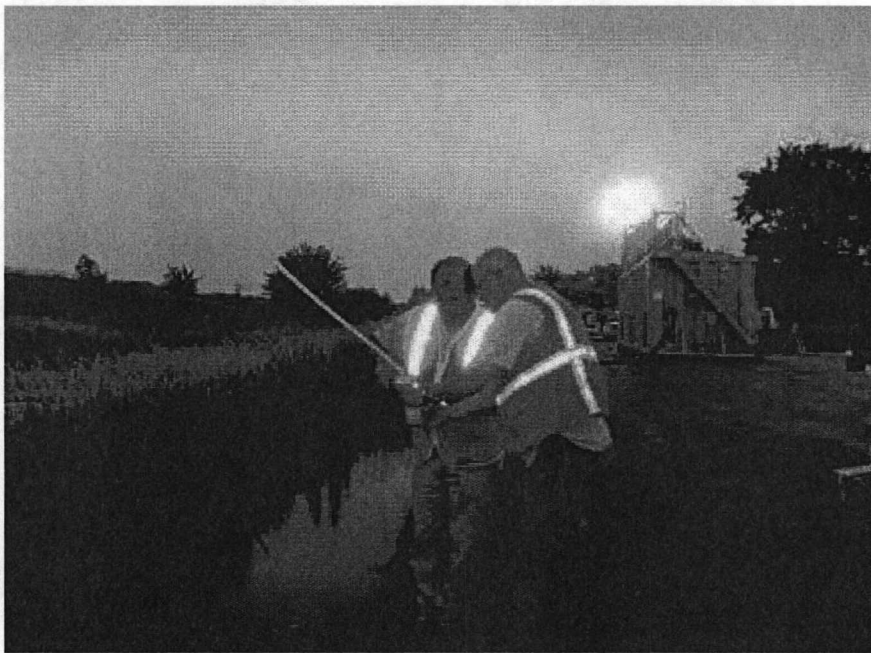
**Photograph No.:** 3

**Direction:** West

**Subject:** Firefighting near Site facility's eastern exterior wall

**Date:** 6/20/13

**Photographer:** Jeff Bryniarski



**Site:** J&R Tire Fire

**Photograph No.:** 4

**Direction:** South

**Subject:** WESTON START collecting sample of fire suppression water from retention ditch

**Date:** 6/20/13

**Photographer:** Jeff Bryniarski



**Site:** J&R Tire Fire

**Photograph No.:** 5

**Direction:** Northeast

**Subject:** Carbon units attached to treatment system near retention ditch

**Date:** 6/20/13

**Photographer:** Jeff Bryniarski



**Site:** J&R Tire Fire

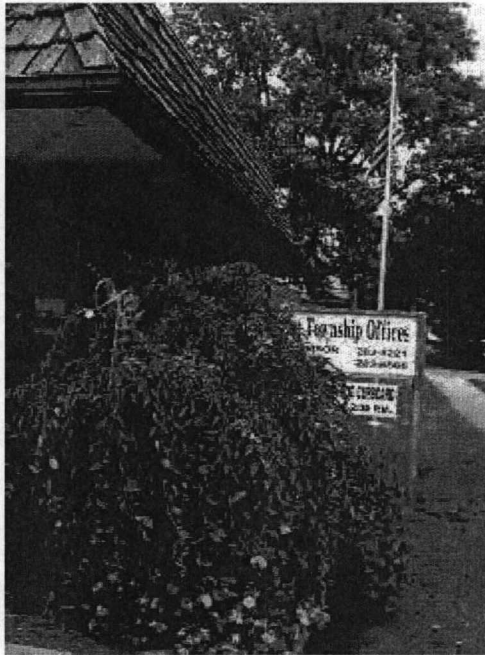
**Photograph No.:** 6

**Direction:** East

**Subject:** ERRS contractor collecting ACM debris from field west of Site

**Date:** 6/25/13

**Photographer:** Bill Pietroburgo



**Site:** J&R Tire Fire

**Photograph No.:** 7

**Direction:** North

**Subject:** Collection of air sample from Grant Township Office in Hoopeston, Illinois

**Date:** 6/23/13

**Photographer:** Bill Pietroburgo



**Site:** J&R Tire Fire

**Photograph No.:** 8

**Direction:** East

**Subject:** Impacted boom from fire suppression water at inflow of retention ditch

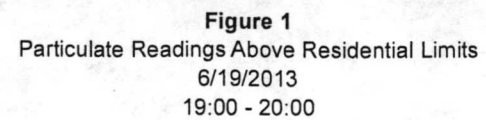
**Date:** 6/23/13

**Photographer:** Bill Pietroburgo

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**ATTACHMENT C**  
**PLUME FIGURES**

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**Figure 1**



## Legend

- < 0.15 mg/m<sup>3</sup>
- > 0.15 mg/m<sup>3</sup>
- ✱ Fire Location

0 500  
Feet

Wind Direction



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U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD:  
DCN:



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**Figure 1**  
Particulate Readings Above Residential Limits  
6/19/2013  
22:00



# Legend

- < 0.15 mg/m<sup>3</sup>
- > 0.15 mg/m<sup>3</sup>
- ★ Fire Location

0 500  
Feet

Wind Direction



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Contract No.: EP-S5-06-04  
TDD:  
DCN:



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**Figure 1**  
Particulate Readings Above Residential Limits  
6/20/2013  
01:00



# Legend

- < 0.15 mg/m<sup>3</sup>
- > 0.15 mg/m<sup>3</sup>
- \* Fire Location

0 500  
Feet

Wind Direction



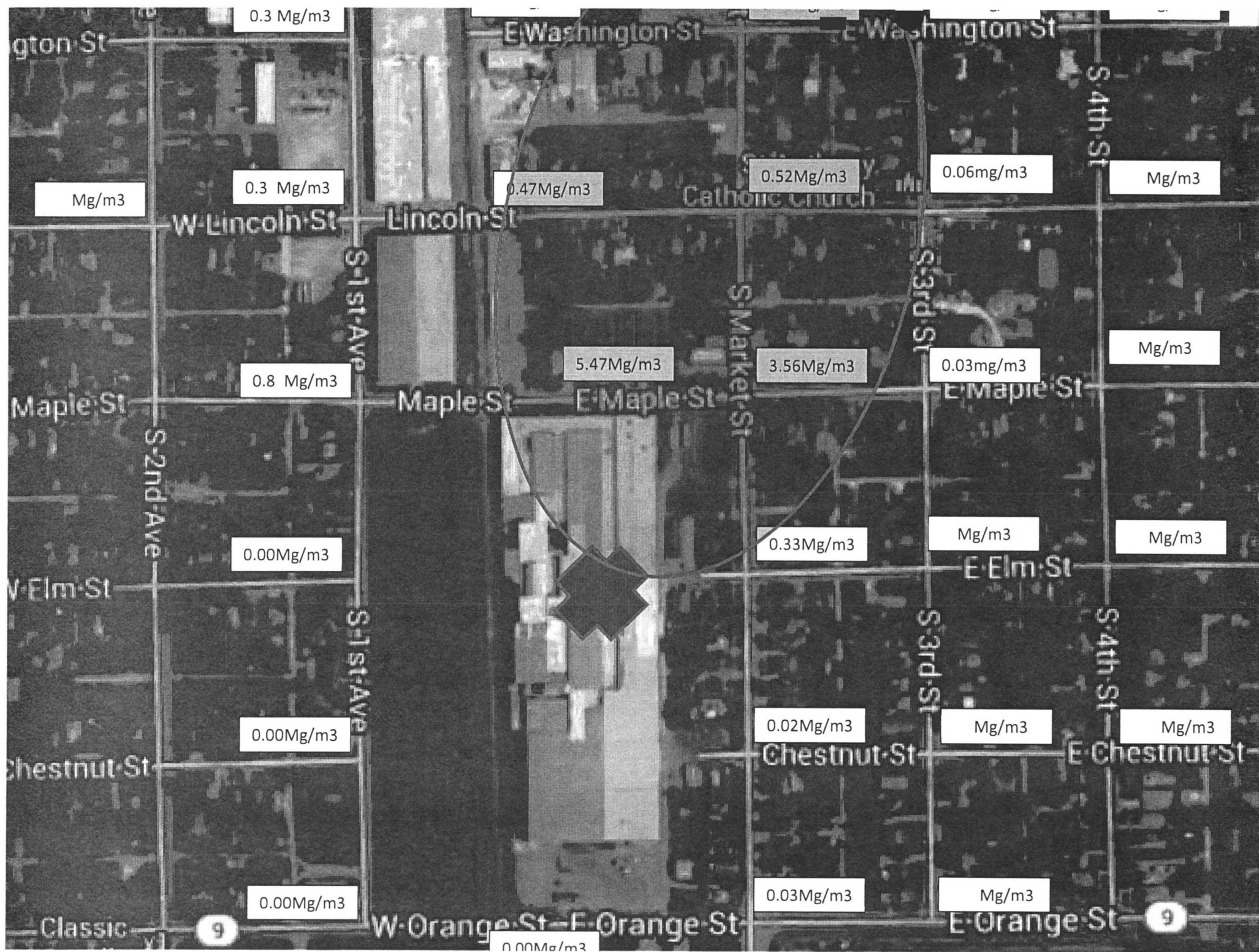
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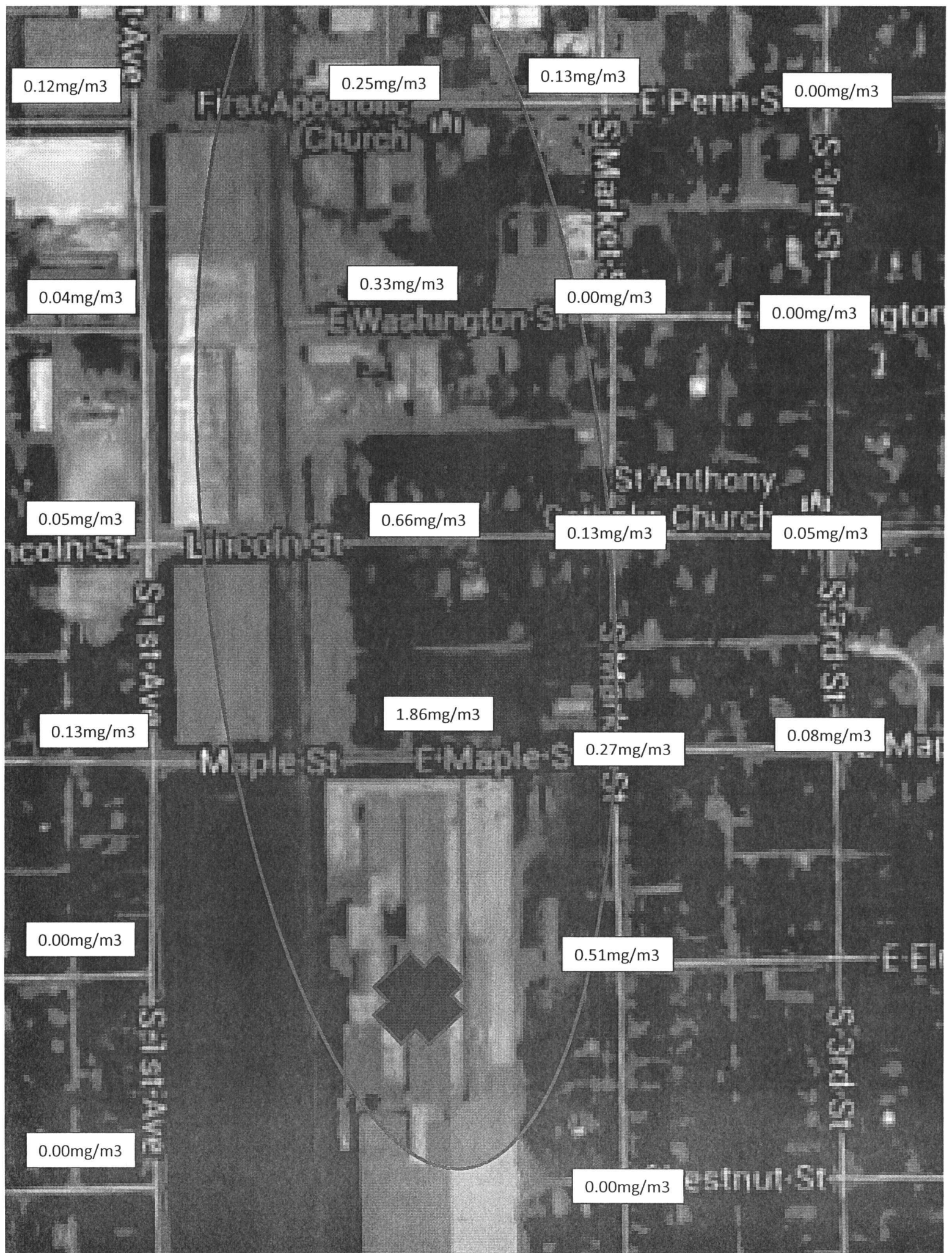
Contract No.: EP-S5-06-04  
TDD:  
DCN:



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**Figure 1**  
Particulate Readings Above Residential Limits  
6/20/2013  
05:00

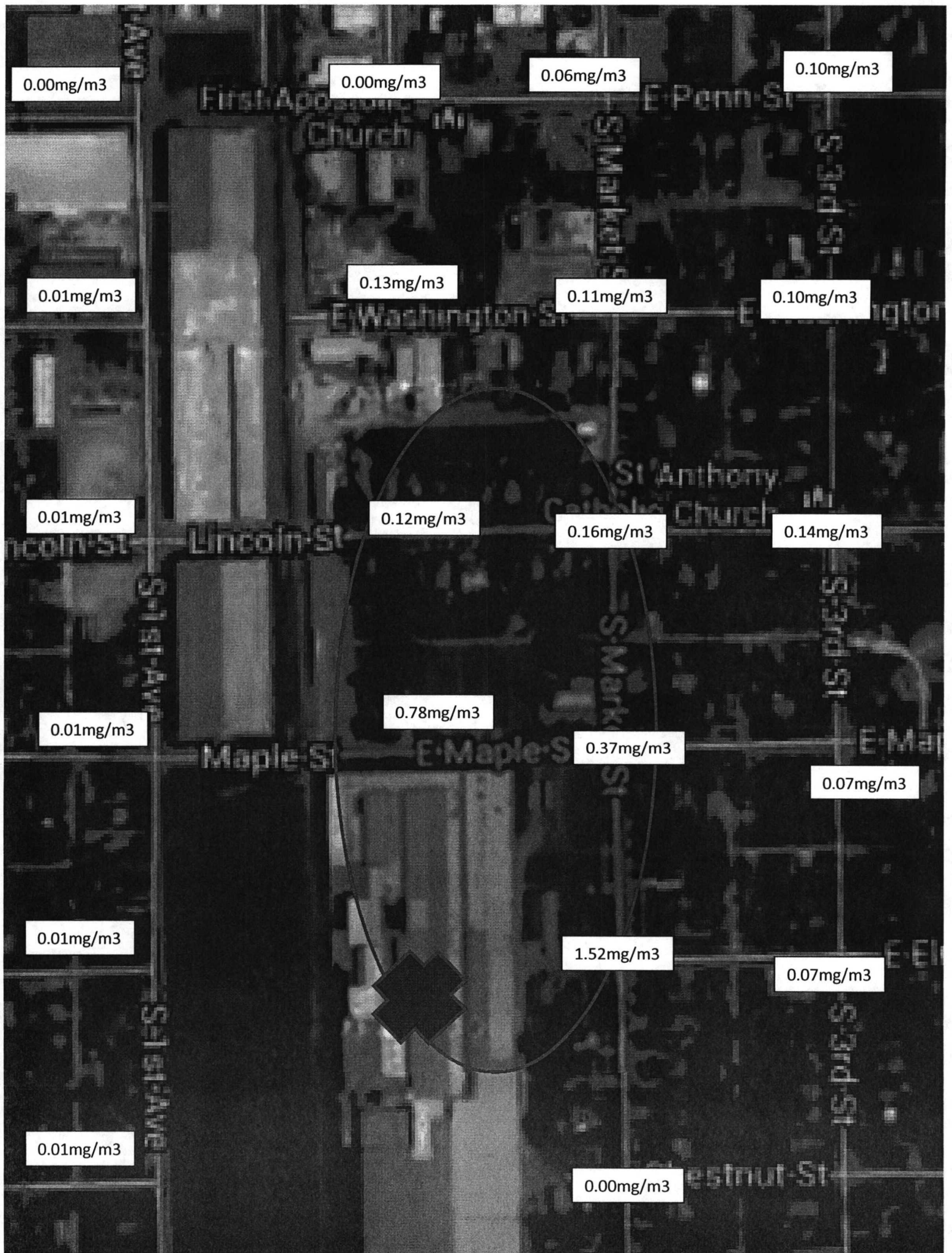


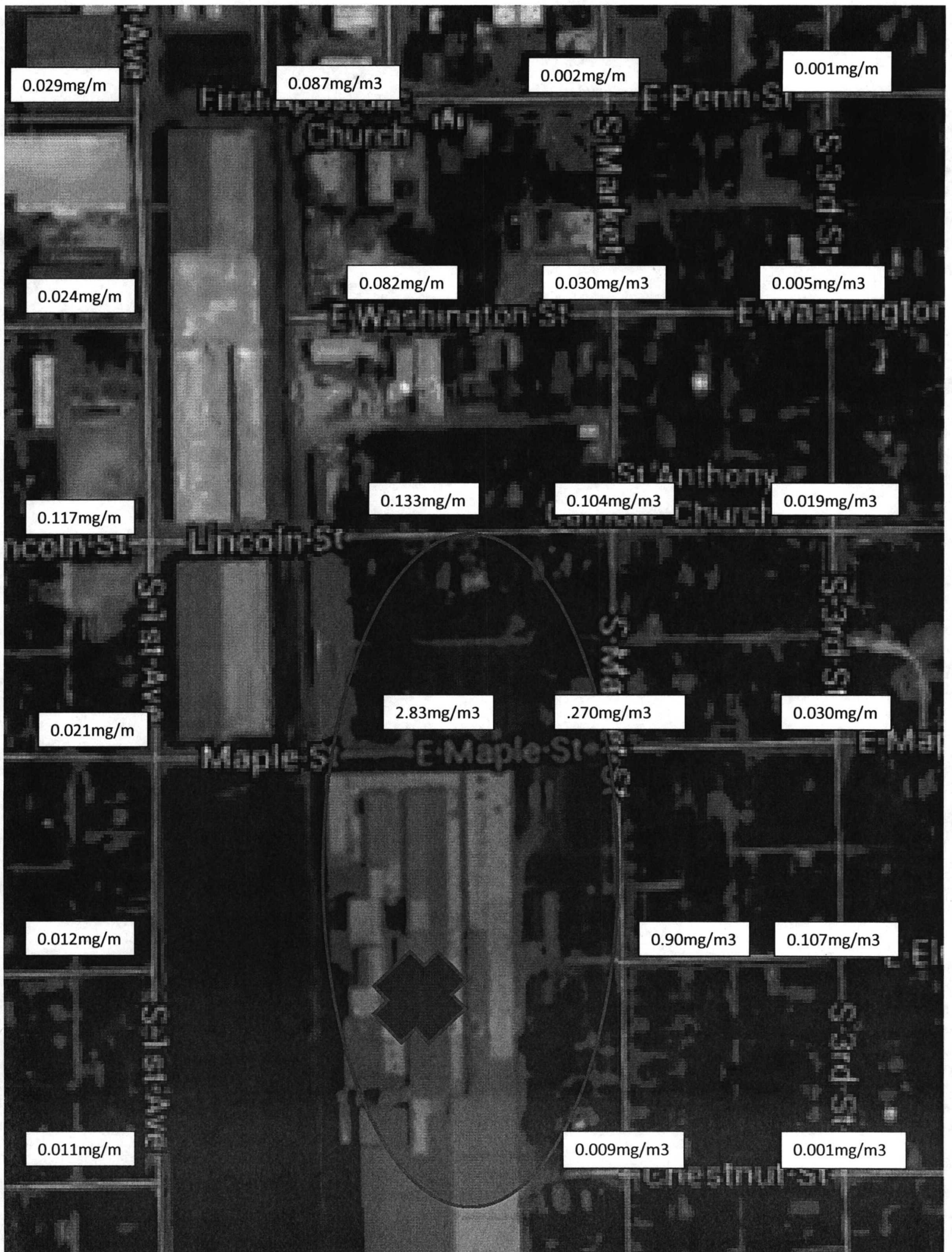














0.079mg/m

0.372mg/m3

0.230mg/m

0.027mg/m

0.030mg/m

0.156mg/m

0.472mg/m3

0.007g/m3

0.014mg/m

0.786mg/m

0.050mg/m3

0.004mg/m3

0.005mg/m

3.182mg/m

0.011mg/m3

0.005mg/m

0.004mg/m

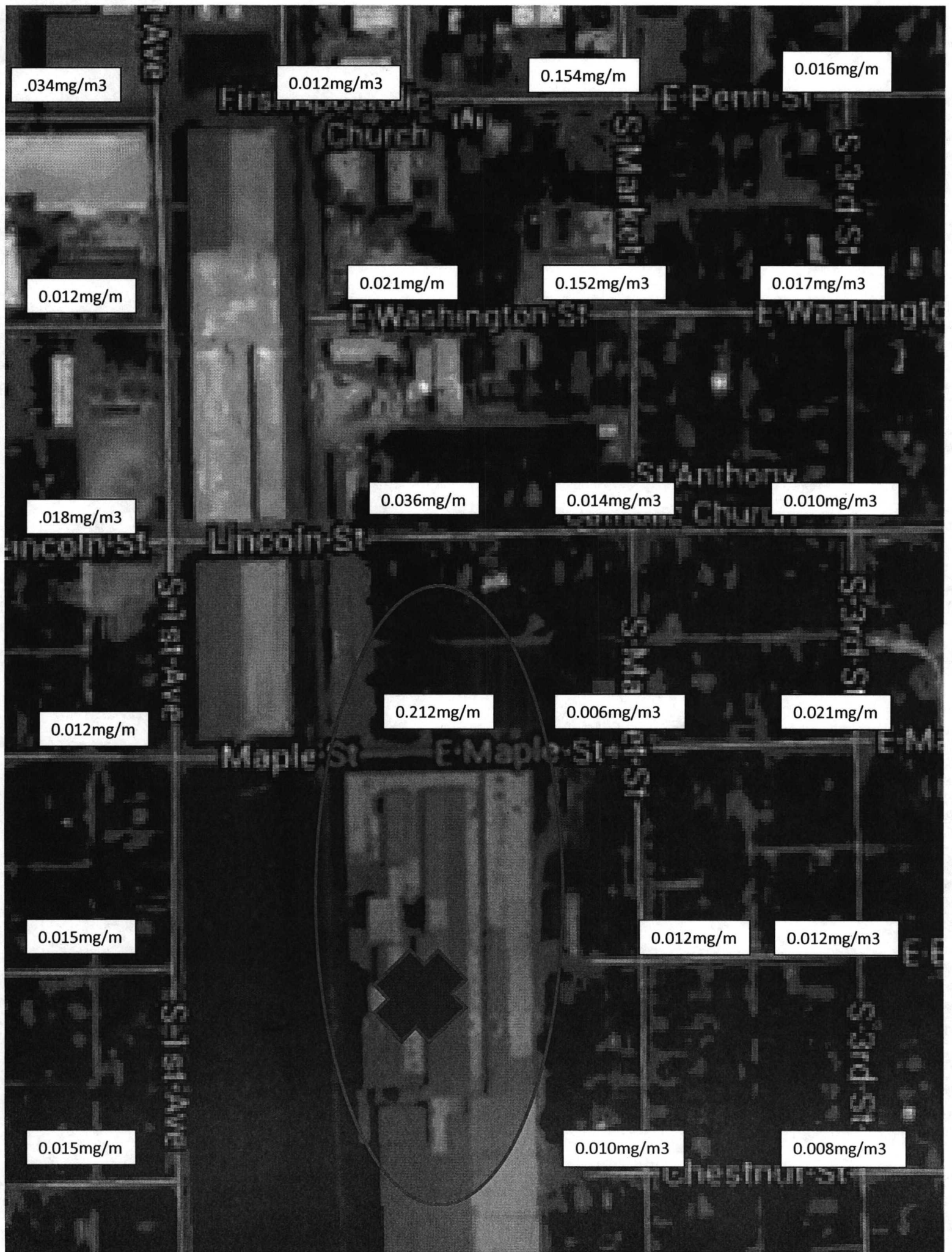
0.032mg/m

0.005mg/m3

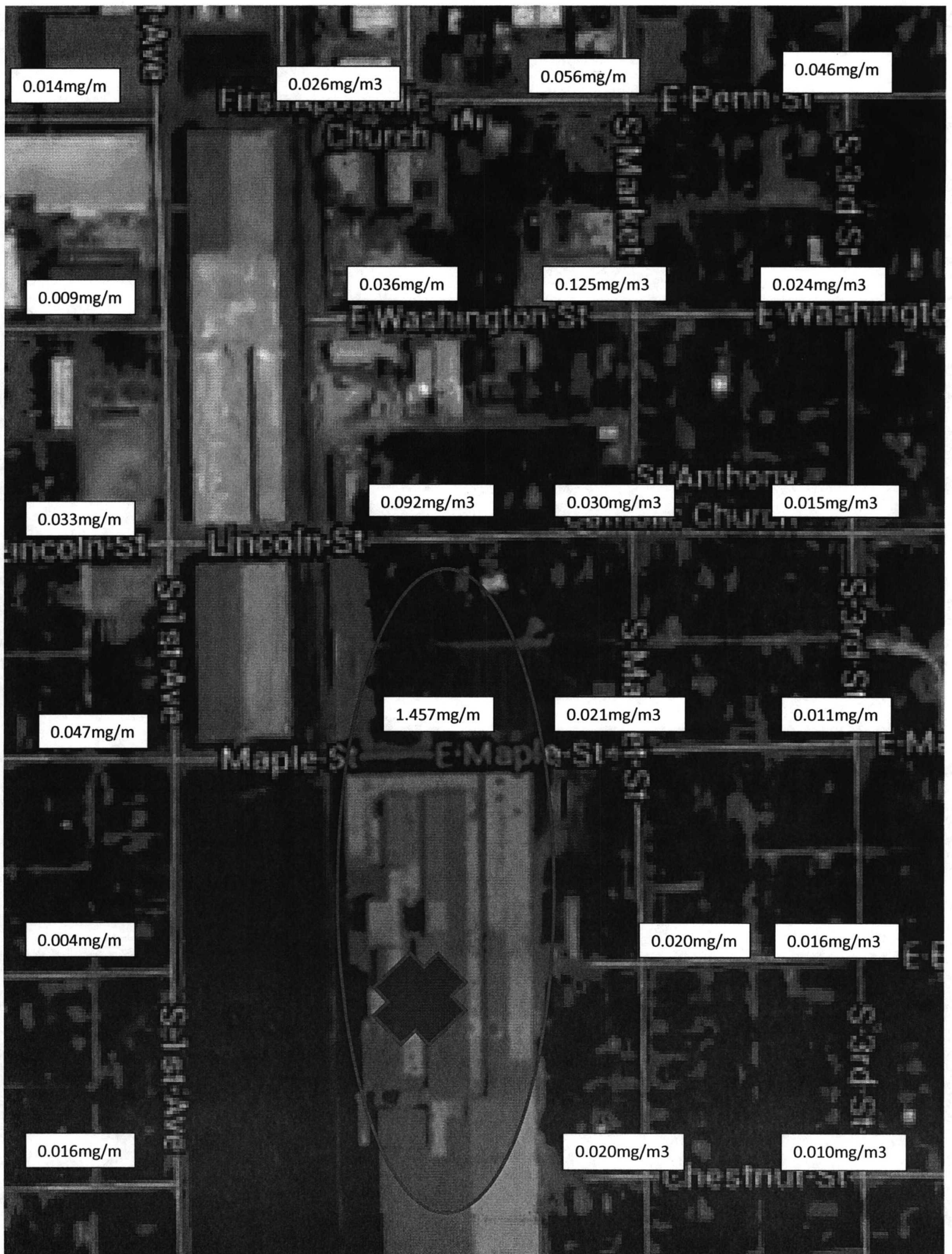
0.006mg/m

0.069mg/m3

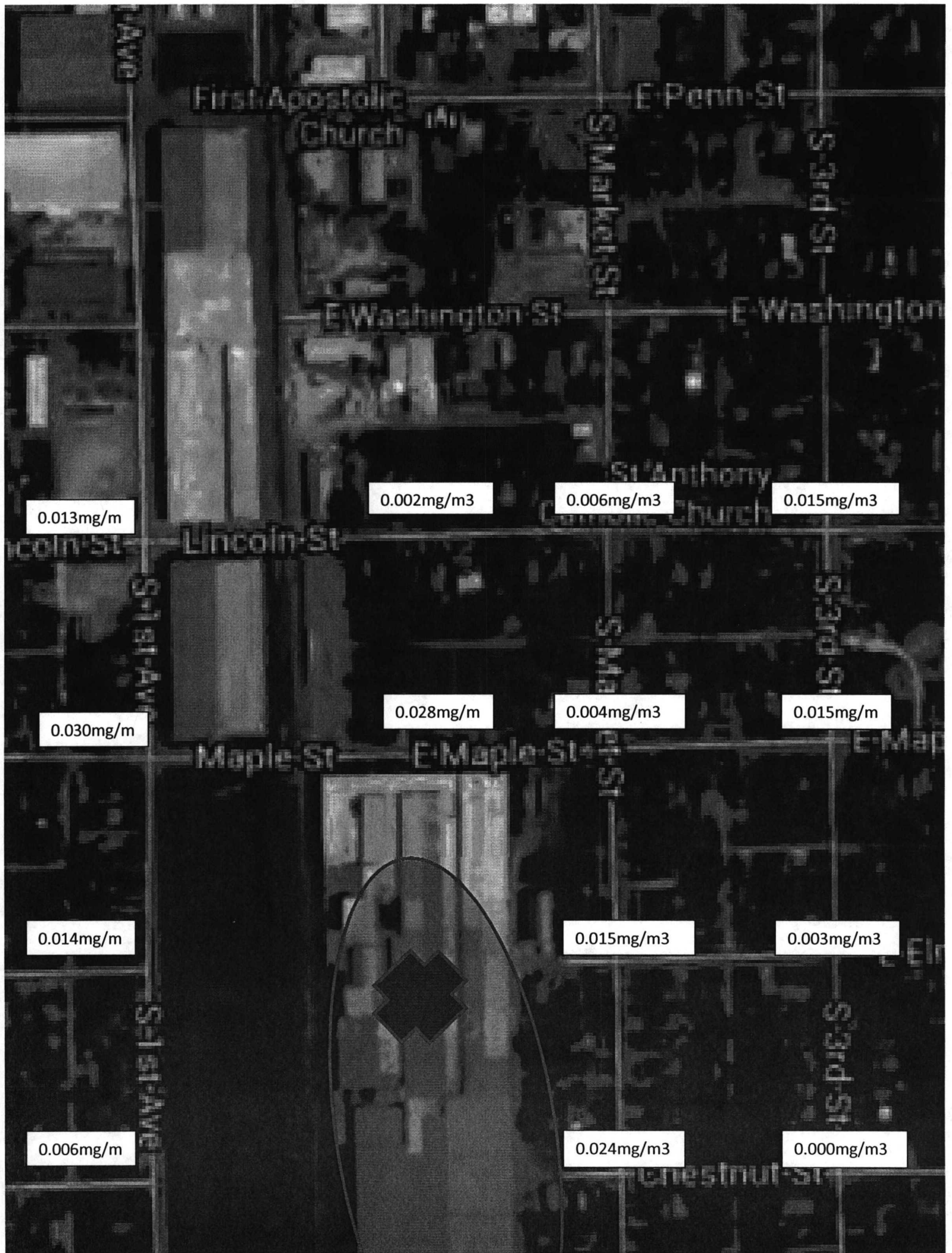
0.003mg/m3















Site Activities 6-25-13

Site Activities 6-26-13

Site Activities 6-27-13

Site Activities 6-28-13

Visual Inspection

**ASBESTOS DEBRIS CLEANUP MAP**  
**Hoopeston, Illinois**  
**J R Tire Fire Emergency Response**  
**Updated 6-26-13**



NORTH

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**ATTACHMENT D**  
**ANALYTICAL RESULTS TABLES**

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**Table 1**  
**Surface Water Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Chemical Name	Location ID	JRF-W01	JRF-W02	JRF-W02	JRF-W03	JRF-W04
	Field Sample ID	JRF-W01-20130620	JRF-W02-20130620	JRF-W02-20130623	JRF-W03-20130627	JRF-W04-20130701
	Sampling Date	6/20/2013	6/20/2013	6/23/2013	6/27/2013	7/1/2013
	Sample Type	Untreated Water	Treated Water	Treated Water	Treated Water	Treated Water
Unit	Result					
TAL Metals						
Aluminum	mg/L	0.21 B	0.092 JB	0.062 J B	0.2 U	0.36
Antimony	mg/L	0.023	0.023	0.02	0.008 J	0.0098 J
Arsenic	mg/L	0.0036 J	0.004 J	0.01 U	0.01 U	0.0028 J
Barium	mg/L	0.13	0.0069 J	0.16 B	0.14	0.076
Beryllium	mg/L	0.00062 JB	0.004 U	0.0005 J	0.004 U	0.0040 U
Cadmium	mg/L	0.0011 JB	0.001 JB	0.0014 J	0.0011 JB	0.00098 J B
Calcium	mg/L	92 B	52 B	170 B	130 B	78 B
Chromium	mg/L	0.0011 J	0.01 U	0.0014 J	0.0015 J	0.0019 J
Cobalt	mg/L	0.056	0.013	0.081	0.035	0.047
Copper	mg/L	0.017	0.0038 J	0.017 B	0.0087 J	0.032
Iron	mg/L	0.52	0.062 J	0.23 B	6.5 B	1.9 B
Lead	mg/L	0.0052 B	0.005 U	0.0056 B	0.0047 J	0.0067
Magnesium	mg/L	39 B	41 B	51 B	42	26
Manganese	mg/L	0.19	0.016	0.47 B	0.41	0.34
Nickel	mg/L	0.0058 J	0.01 U	0.014	0.0075 J	0.0068 J
Potassium	mg/L	14	260	22	16	11
Selenium	mg/L	0.01 U	0.0062 J	0.01 U	0.01 U	0.010 U
Silver	mg/L	0.005 U	0.005 U	0.00072 J B	0.00058 J	0.0050 U
Sodium	mg/L	34	71	62 B	71	43
Thallium	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.010 U
Vanadium	mg/L	0.0027 JB	0.0021 JB	0.0017 J	0.0012 J	0.0016 J
Zinc	mg/L	0.2 B	0.078 B	1.3 B	0.8 B	1.2 B
Mercury	mg/L	0.00013 J	0.0001 J	0.00045	0.0002	
VOCs						
1,1,1-Trichloroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,1,2-Trichloroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,1-Dichloroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,1-Dichloroethene	µg/L	1 U	1 U	1 U	1 U	1.0 U

**Table 1**  
**Surface Water Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Chemical Name	Location ID	JRF-W01	JRF-W02	JRF-W02	JRF-W03	JRF-W04
	Field Sample ID	JRF-W01-20130620	JRF-W02-20130620	JRF-W02-20130623	JRF-W03-20130627	JRF-W04-20130701
	Sampling Date	6/20/2013	6/20/2013	6/23/2013	6/27/2013	7/1/2013
	Sample Type	Untreated Water	Treated Water	Treated Water	Treated Water	Treated Water
	Unit	Result				
1,2,4-Trichlorobenzene	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,2-Dibromo-3-chloropropane	µg/L	2 U	2 U	2 U	2 U	2.0 U
1,2-Dibromoethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,2-Dichlorobenzene	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,2-Dichloroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,2-Dichloropropane	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,3-Dichlorobenzene	µg/L	1 U	1 U	1 U	1 U	1.0 U
1,4-Dichlorobenzene	µg/L	1 U	1 U	1 U	1 U	1.0 U
2-Hexanone	µg/L	9.3	5 U	5 U	2.5 J	5.0 U
Acetone	µg/L	1000	5 U	510	320	63
Benzene	µg/L	150	0.5 U	87	91	1.5
Bromodichloromethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Bromoform	µg/L	1 U	1 U	1 U	1 U	1.0 U
Bromomethane	µg/L	1 U*	1 U*	1 U	1 U	1.0 U
Carbon disulfide	µg/L	5 U	5 U	5 U	5 U	5.0 U
Carbon tetrachloride	µg/L	1 U	1 U	1 U	1 U	1.0 U
Chlorobenzene	µg/L	2.2	1 U	1 U	1 U	1.0 U
Chloroethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Chloroform	µg/L	1 U	1 U	1 U	1 U	1.0 U
Chloromethane	µg/L	1.3	1 U	1 U	1 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1 U	1 U	2	5.2	1.4
cis-1,3-Dichloropropene	µg/L	1 U	1 U	1 U	1 U	1.0 U
Cyclohexane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Dibromochloromethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Dichlorodifluoromethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Ethylbenzene	µg/L	33	0.5 U	5.8	6.7	3.8
Isopropylbenzene	µg/L	3.2	1 U	0.94 J	1	0.81 J
Methyl acetate	µg/L	2 U	2 U	2 U	9.7	2.0 U
Methyl ethyl ketone	µg/L	290	5 U	190	87	7.4
Methyl isobutyl ketone	µg/L	590	5 U	470	300	18
Methyl tert-butyl ether	µg/L	1 U	1 U	1 U	1 U	1.0 U

**Table 1**  
**Surface Water Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Chemical Name	Location ID	JRF-W01	JRF-W02	JRF-W02	JRF-W03	JRF-W04
	Field Sample ID	JRF-W01-20130620	JRF-W02-20130620	JRF-W02-20130623	JRF-W03-20130627	JRF-W04-20130701
	Sampling Date	6/20/2013	6/20/2013	6/23/2013	6/27/2013	7/1/2013
	Sample Type	Untreated Water	Treated Water	Treated Water	Treated Water	Treated Water
	Unit	Result				
Methylcyclohexane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Methylene chloride	µg/L	5 U	5 U	5 U	5 U	5.0 U
Styrene	µg/L	22	1 U	2.2	1.9	0.97 J
Tetrachloroethene	µg/L	1 U	1 U	1 U	0.85 J	1.0
Toluene	µg/L	180	0.28 J	29	38	0.88
trans-1,2-Dichloroethene	µg/L	1 U	1 U	1 U	1 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1 U	1 U	1 U	1 U	1.0 U
Trichloroethene	µg/L	0.73	0.5 U	1.6	5.4	4.1
Trichlorofluoromethane	µg/L	1 U	1 U	1 U	1 U	1.0 U
Vinyl chloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Xylenes, Total	µg/L	120	1 U	13	13	11
<b>SVOCs</b>						
1,1'-Biphenyl	µg/L	19 U	3.7 U	51 U	26 U	19 U
2,2'-oxybis(1-chloropropane)	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
2,4,5-Trichlorophenol	µg/L	37 U	7.4 U	100 U	51 U	37 U
2,4,6-Trichlorophenol	µg/L	19 U	3.7 U	51 U	26 U	19 U
2,4-Dichlorophenol	µg/L	37 U	7.4 U	100 U	51 U	37 U
2,4-Dimethylphenol	µg/L	37 U	7.4 U	100 U	51 U	37 U
2,4-Dinitrophenol	µg/L	74 U	15 U	200 U	100 U	75 U *
2,4-Dinitrotoluene	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U
2,6-Dinitrotoluene	µg/L	1.9 U	0.37 U	5.1 U	2.6 U	1.9 U
2-Chloronaphthalene	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
2-Chlorophenol	µg/L	19 U	3.7 U	51 U	26 U	19 U
2-Methylnaphthalene	µg/L	8.8	0.37 U	5.1 U	2.6 U	1.5 J
2-Methylphenol	µg/L	360	1.5 U	170	180	2.5 J
2-Nitroaniline	µg/L	19 U	3.7 U	51 U	26 U	19 U
2-Nitrophenol	µg/L	37 U	7.4 U	100 U	51 U	37 U
3 & 4 Methylphenol	µg/L	140	1.5 U	31	59	7.5 U
3,3'-Dichlorobenzidine	µg/L	19 U	3.7 U	51 U	26 U	19 U
3-Nitroaniline	µg/L	37 U	7.4 U	100 U *	51 U*	37 U
4,6-Dinitro-2-methylphenol	µg/L	74 U	15 U	200 U	100 U	75 U

**Table 1**  
**Surface Water Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Chemical Name	Location ID	JRF-W01	JRF-W02	JRF-W02	JRF-W03	JRF-W04
	Field Sample ID	JRF-W01-20130620	JRF-W02-20130620	JRF-W02-20130623	JRF-W03-20130627	JRF-W04-20130701
	Sampling Date	6/20/2013	6/20/2013	6/23/2013	6/27/2013	7/1/2013
	Sample Type	Untreated Water	Treated Water	Treated Water	Treated Water	Treated Water
	Unit	Result				
4-Bromophenyl phenyl ether	µg/L	19 U	3.7 U	51 U	26 U	19 U
4-Chloro-3-methylphenol	µg/L	37 U	7.4 U	100 U	51 U	37 U
4-Chloroaniline	µg/L	37 U	7.4 U	100 U *	51 U*	37 U *
4-Chlorophenyl phenyl ether	µg/L	19 U	3.7 U	51 U	26 U	19 U
4-Nitroaniline	µg/L	37 U	7.4 U	100 U	51 U*	37 U *
4-Nitrophenol	µg/L	74 U	15 U	200 U	100 U	75 U
Acenaphthene	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U *
Acenaphthylene	µg/L	4	0.74 U	10 U	5.1 U	3.7 U
Acetophenone	µg/L	85	3.7 U	13 J	26 U	9.9 J
Anthracene	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U
Atrazine	µg/L	19 U	3.7 U	51 U	26 U	19 U
Benzaldehyde	µg/L	37 U*	7.4 U	100 U	51 U	37 U *
Benzo(a)anthracene	µg/L	0.74 U	0.15 U	2 U	1 U	0.75 U
Benzo(a)pyrene	µg/L	0.74 U	0.15 U	2 U	1.2	0.75 U
Benzo(b)fluoranthene	µg/L	0.74 U	0.15 U	2 U	0.88 J	0.75 U
Benzo(g,h,i)perylene	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U
Benzo(k)fluoranthene	µg/L	0.74 U	0.15 U	2 U	0.89 J	0.75 U
Bis(2-chloroethoxy)methane	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
Bis(2-chloroethyl)ether	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
Bis(2-ethylhexyl) phthalate	µg/L	37 U	7.4 U	100 U	51 U	37 U
Butyl benzyl phthalate	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
Caprolactam	µg/L	6600	7.4 U	100 U	51 U*	37 U
Carbazole	µg/L	19 U	3.7 U	51 U *	26 U*	19 U
Chrysene	µg/L	1.9 U	0.37 U	5.1 U	2.6 U	1.9 U
Dibenz(a,h)anthracene	µg/L	1.1 U	0.22 U	3 U	1.6	1.1 U
Dibenzofuran	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
Diethyl phthalate	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
Dimethyl phthalate	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U *
Di-n-butyl phthalate	µg/L	19 U	3.7 U	51 U	26 U	19 U
Di-n-octyl phthalate	µg/L	37 U	7.4 U	100 U	51 U	37 U
Fluoranthene	µg/L	3.7 U	0.74 U	10 U	5.1 U	0.86 J

**Table 1**  
**Surface Water Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Chemical Name	Location ID	JRF-W01	JRF-W02	JRF-W02	JRF-W03	JRF-W04
	Field Sample ID	JRF-W01-20130620	JRF-W02-20130620	JRF-W02-20130623	JRF-W03-20130627	JRF-W04-20130701
	Sampling Date	6/20/2013	6/20/2013	6/23/2013	6/27/2013	7/1/2013
	Sample Type	Untreated Water	Treated Water	Treated Water	Treated Water	Treated Water
	Unit	Result				
Fluorene	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U
Hexachlorobenzene	µg/L	1.9 U	0.37 U	5.1 U	2.6 U	1.9 U
Hexachlorobutadiene	µg/L	19 U	3.7 U	51 U	26 U	19 U *
Hexachlorocyclopentadiene	µg/L	74 U	15 U	200 U	100 U	75 U
Hexachloroethane	µg/L	19 U	3.7 U	51 U	26 U	19 U *
Indeno(1,2,3-cd)pyrene	µg/L	0.74 U	0.15 U	2 U	1.5	0.75 U
Isophorone	µg/L	7.4 U	1.5 U	20 U	10 U	7.5 U
Naphthalene	µg/L	66	0.74 U	10 U	5.1 U	1.1 J
Nitrobenzene	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U
N-Nitrosodi-n-propylamine	µg/L	1.9 U	0.37 U	5.1 U	2.6 U	1.9 U
N-Nitrosodiphenylamine	µg/L	3.7 U	0.74 U	10 U	5.1 U	3.7 U
Pentachlorophenol	µg/L	74 U	15 U	200 U	100 U	75 U
Phenanthrene	µg/L	2.1 J	0.74 U	10 U	5.1 U	0.93 J
Phenol	µg/L	530	3.7 U	290	360	19 U
Pyrene	µg/L	3.7 U	0.74 U	10 U	5.1 U	1.2 J
<b>Total Sulfide</b>						
Sulfide	µg/L	1 U	1 U	NA	NA	2.9
<b>pH</b>						
pH	SU	7.75 HF	9.2 HF	7.27	7.1 HF	7.23

**Notes:**

\* = LCS or LCSD exceeds control limits  
µg/L = Microgram per liter  
B = Compound was found in the blank and sample  
F = MS, MSD or RPD exceeds control limits  
HF = Field parameter with short holding time  
ID = Identification  
J = Estimated result

NA = Not analyzed  
mg/L = Milligram per liter  
SU = Standard unit  
SVOC = Semivolatile organic compound  
TAL = Target Analyte List  
U = Undetected at the reporting limit listed  
VOC = Volatile organic compound

**Table 2**  
**Bulk Asbestos Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Sample ID	Asbestos Components (%)	Non-Asbestos Components (%)	Material Comments
JRF-A-W-01	ND	Binder 99 - 100%	Black Foam
JRF-A-W-02	ND	Binder 99 - 100%	Black Felt
JRF-A-W-03	Chrysotile 5-10%	Binder 90 - 95%	Black Felt
JRF-A-W-04	ND	Binder 99 - 100%	Black Foam
JRF-A-W-05	ND	Binder 99 - 100%	Black Felt
JRF-A-W-06	Chrysotile 5-10%	Binder 90 - 95%	Gray Wrap
JRF-A-W-07	ND	Binder 99 - 100%	Black Foam
JRF-A-W-08	Chrysotile 1-5%	Binder 95 - 99%	Gray Wrap
JRF-A-W-09	ND	Binder 99 - 100%	Black Felt
JRF-A-S-10	ND	Binder 99 - 100%	Black Felt
JRF-A-E-11	Chrysotile 1-5%	Binder 95 - 99%	Black Felt
JRF-A-ND-12	ND	Binder 90 - 95%	Gray Brick Cement
		Other 5 - 10%	
JRF-A-W-13	ND	Binder 99 - 100%	Roofing Felt/Insulation
JRF-A-ED-14	ND	Cellulose 5 - 10%	Wall Cement
		Binder 90 - 95%	
JRF-A-ED-15	ND	Glass 99 - 100%	Wall Insulation
JRF-A-SD-16	ND	Binder 90 - 95%	Cream Cement Material
		Other 5 - 10%	
JRF-A-SD-17	ND	Binder 99 - 100%	Soot Debris

Notes:

ID = Identification

ND = Not detected

**Table 3**  
**Asbestos in Air Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Sample ID	Air Volume (Liters)	Grid Openings Counted	Total Fibers >5µm	PCM Fibers (cc)	PCM Fibers (mm <sup>2</sup> )	Asbestos Fibers 7402 (cc)	Asbestos Fibers 7402 (mm <sup>2</sup> )
062313-A1	600	20	2	0.0025	3.8	≤0.0027	≤7.0
062313-A2	600	20	3	0.0033	5.1	≤0.0027	≤7.0
062313-A3	600	20	4	0.0029	4.5	≤0.0027	≤7.0
062313-A4	600	20	0	0.0016	2.5	≤0.0027	≤7.0
062313-A5	600	20	2	0.0008	1.3	≤0.0027	≤7.0
062313-A6*	0	20	0	≤7.0			≤7.0
062313-A7*	0	20	0	≤7.0			≤7.0

Notes:

\* = Media blank

µm = Micrometer

cc = Cubic centimeter

mm<sup>2</sup> = Square millimeter

PCM = Phase contrast microscopy

**Table 4**  
**PCM Asbestos Analytical Results**  
**J and R Tire Fire Site**  
**Hoopeston, Vermilion County, Illinois**

Sample ID	Air Volume (Liters)	Fibers	Number of Fields	Calculated Result		Reported Result
				f/cc	f/mm <sup>2</sup>	
062313-A1	600	3	100	0.0025	3.8	<0.0045 f/cc
062313-A2	600	4	100	0.0033	5.1	<0.0045 f/cc
062313-A3	600	3.5	100	0.0029	4.5	<0.0045 f/cc
062313-A4	600	2	100	0.0016	2.5	<0.0045 f/cc
062313-A5	600	1	100	0.0008	1.3	<0.0045 f/cc
062313-A6*	0	0	100	--	<7	<7 f/mm <sup>2</sup>
062313-A7*	0	0	100	--	<7	<7 f/mm <sup>2</sup>

Notes:

\* = Media blank

f/cc = Fiber per cubic centimeter of air

f/mm<sup>2</sup> = Fiber per square millimeter

PCM = Phase Contrast Microscopy